



2016
Major Automated Information System
Annual Report



**Theater Medical Information Program-Joint Increment 2 (TMIP-J Inc
2)**

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MAIS Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ADM - Acquisition Decision Memorandum
AoA - Analysis of Alternatives
ATO - Authority To Operate
APB - Acquisition Program Baseline
BY - Base Year
CAE - Component Acquisition Executive
CDD - Capability Development Document
CPD - Capability Production Document
DAE - Defense Acquisition Executive
DoD - Department of Defense
DoDAF - DoD Architecture Framework
FD - Full Deployment
FDD - Full Deployment Decision
FY - Fiscal Year
IA - Information Assurance
IATO - Interim Authority to Operate
ICD - Initial Capability Document
IEA - Information Enterprise Architecture
IOC - Initial Operational Capability
IP - Internet Protocol
IT - Information Technology
KPP - Key Performance Parameter
\$M - Millions of Dollars
MAIS - Major Automated Information System
MAIS OE - MAIS Original Estimate
MAR – MAIS Annual Report
MDA - Milestone Decision Authority
MDD - Materiel Development Decision
MILCON - Military Construction
MS - Milestone
N/A - Not Applicable
O&S - Operating and Support
OSD - Office of the Secretary of Defense
PB - President's Budget
RDT&E - Research, Development, Test, and Evaluation
SAE - Service Acquisition Executive
TBD - To Be Determined
TY - Then Year
U.S.C- United States Code
USD(AT&L) - Under Secretary of Defense for Acquisition, Technology, & Logistics

Program Information

Program Name

Theater Medical Information Program-Joint Increment 2 (TMIP-J Inc 2)

DoD Component

DoD

The acquiring DoD Component is Program Executive Office (PEO) Department of Defense (DoD) Healthcare Management Systems (DHMS) for Defense Health Agency (DHA).

Responsible Office

Program Manager

Mr. Charles Updegrove
1501 Wilson Blvd., Room 613
Rosslyn, VA 22209

charles.d.updegrove.civ@mail.mil

Phone: 703-588-5615

Fax:

DSN Phone:

DSN Fax:

Date Assigned: April 1, 2013

References

MAIS Original Estimate

February 19, 2014

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 23, 2013

Program Description

The Theater Medical Information Program - Joint (TMIP-J) integrates components of the Military Health System (MHS) sustaining base systems and the Services' medical information systems to ensure timely interoperable medical support for mobilization, deployment, and sustainment of all Theater and deployed forces in support of any mission. TMIP-J enhances the clinical care and information capture at all levels of care in Theater, transmits critical information to the Theater Commander; the evacuation chain for combat and non-combat casualties; and forges the theater links of the longitudinal health record to the sustaining base and the Department of Veterans Affairs (VA). TMIP-J is the medical component of the Global Combat Support System (GCSS). TMIP-J provides information at the point of care and to the Theater tactical and strategic decision makers through efficient, reliable data capture, and data transmission to a centralized Theater database. This delivers TMIP-J's four pillars of information support through the electronic health record; integrated medical logistics; patient movement and tracking; and medical command and control through data aggregation, reporting and analysis tools for trend analysis and situational awareness. TMIP-J fulfills the premise of "Train as you fight" through the integration of its components which are identical or analogous to systems from the sustaining base. TMIP-J adapts and integrates these systems to specific Theater requirements and assures their availability in the no- and low- communications settings of the deployed environment through store and forward capture and transmission technology.

Business Case

Business Case Analysis, including the Analysis of Alternatives: Key functional requirements for this program (which were articulated in the Capability Production Document (CPD), dated September 28, 2007), are summarized as follows: (1) TMIP-J integrates components of the MHS sustaining base systems and the Services' medical information systems to ensure seamless, interoperable support for rapid mobilization events, operational deployments, and sustainment of all tactical/fleet medical services; (2) TMIP-J is a major information technology enabler to support the Universal Joint Task List Strategic National Tasks and the MHS critical mission tenets of Force Health Protection (FHP). FHP is a "total life cycle" health support system supporting the concepts described in Joint Vision through an integrated and focused approach to protect and sustain the warfighter in a deployed environment. FHP directly supports the medical readiness of every soldier, sailor, airman, and marine for all military operations. A key mission of TMIP-J is to facilitate the electronic documentation of the service member's health care in tactical/fleet environments.

The Analysis of Alternatives (AoA) was approved on December 16, 1997. The AoA compared two development alternatives against an existing baseline. This baseline outlined the risks that the Services would experience by addressing Theater health service requirements through a variety of disconnected, overlapping efforts in the absence of TMIP-J. The two development alternatives are described as follows:

New Start Approach - development of entirely new hardware and software dedicated to and optimized to meet Theater health service requirements; and

Integrated Approach - integration and modification of existing systems to meet Theater health service requirements, except where analysis clearly shows a gap or shortfall (e.g., medical command and control, medical threat/intelligence, medical surveillance) where new systems will be developed.

The Integrated Approach was selected to be the best development alternative because it was evaluated as having the highest monetary return on investment and lowest funding, technical, and schedule risk. In addition, it maximized the utilization of commercial off-the-shelf/government off-the-shelf technology and its development approach was fully consistent with major command, control, communications, computers, and intelligence architectural guidance and acquisition strategies, e.g., Joint Technical Architecture, Global Command and Control System, GCSS. The recommended alternative was approved by the Milestone Decision Authority (MDA) with the approval of the Acquisition Strategy on February 2, 2007, and Acquisition Program Baseline (APB) on December 20, 2007.

Firm, Fixed-Price Feasibility: The determination of contract type was based on cost risk associated with the estimated cost of satisfying the requirement, not any lack of clarity of the technical requirement. The MDA has selected a cost-type contract because development tasks are sufficiently complex and technically challenging that it is impossible to precisely estimate the cost of satisfying the requirements, and not practicable to reduce cost risk to a level that would permit the use of a fixed-price contract.

Independent Cost Estimate: The Under Secretary of Defense for Acquisition, Technology, and Logistics is not the MDA; therefore, an independent cost estimate is not required by 10 U.S.C. 2334(a)(6) in response to the Critical Change experienced. However, a revised component cost estimate was completed in November 2010 in support of the Acquisition Decision Memorandum (ADM) dated April 24, 2009. This latest component cost estimate is still under Office of the Secretary of Defense (OSD) review with the associated revised Acquisition Strategy and APB being staffed. This latest component cost estimate is still under Office of the Secretary of Defense review with the associated revised Acquisition Strategy and APB being staffed.

Certification of Business Case Alignment; Explanation: I certify that all technical and business requirements have been reviewed and validated to ensure alignment with the business case. This certification is based on my review of the CPD, AoA, ADM, APB, and Acquisition Strategy described above.

The above information was certified and provided to Congress in the 2011 MAIS Annual Report (MAR).

Business Case Certification:

Name: Michael Fischetti CAE/TMA

Business Case Changes

There has been no significant change to the Business Case since it was last certified; however, the following information is provided.

The Deputy Chief Management Officer (DCMO) signed the TMIP-J Increment 2 Acquisition Strategy on December 6, 2011. The DCMO signed the Acquisition Program Baseline (APB) on January 26, 2012, followed by the approval of the Original Estimate on January 27, 2012, thus re-baselining the program.

In support of the Full Deployment Decision (FDD), the TMIP-J Increment 2 Economic Analysis was approved on December 6, 2013.

The USD(AT&L) signed an Acquisition Decision Memorandum (ADM) on December 23, 2013 approving FDD for TMIP-J Increment 2 and establishing the Full Deployment Objective and Threshold dates as December 2015 and June 2016, respectively. The USD(AT&L) also approved the updated APB on December 23, 2013 and the updated Acquisition Strategy on January 15, 2014.

Program Status

Annual Report: The program is substantially on track to remain within the schedule, cost and performance thresholds identified in the Original Estimate; there have been no Significant or Critical Changes (as defined by 10 U.S.C. Chapter 144A) reported since the previous MAIS Annual Report to Congress.

Per the December 23, 2014 Acquisition Decision Memorandum from USD(AT&L), the TMIP-J program is now aligned under Program Executive Officer (PEO) Defense Healthcare Management Systems (DHMS).

Significant Issues: None

Significant Accomplishments:

- The TMIP-J Program is on track to achieve Full Deployment (FD) and transition into sustainment. The FD Objective date is December 2015 and the Threshold date is June 2016.

- The Program delivered Release 3 (maintenance releases) to the Services on schedule in 4QFY15. The Services completed Multi-Service Operational Test and Evaluation (MOT&E) for Release 3. Services Operational Test Agencies are currently reviewing test results and coordinating with the program office to address any emergent system concerns.

Schedule

Schedule Events		
Events	Original Estimate Objective	Current Estimate (Or Actual)
Milestone C ¹	Dec 2007	Dec 2007
Initial Operational Capability ²	Jun 2008	Apr 2009
Full Operational Capability (FOC) ²	N/A	N/A
Full Deployment Decision ³	Dec 2013	Dec 2013
Full Deployment ³	Dec 2015	Jun 2016

Memo

B/ The TMIP-J program was certified to Congress on April 24, 2009 for cost and schedule per Title 10 United States Code Section 2445c(d).

1/ Milestone B Objective - OCT 2002 and Threshold - JAN 2003; actual occurred JAN 2003.

2/ IOC and FOC definitions can be found within the approved TMIP-J Increment 2 CPD, JROCM 226-07, September 28, 2007. IOC was achieved on April 28, 2009.

3/ The Operational Test Agency Evaluation Report for TMIP-J I2R2 was approved on December 6, 2013. USD(AT&L) signed the ADM on December 23, 2013 defining the Full Deployment Objective date as December 2015 and the Threshold date as June 2016.

Acronyms and Abbreviations

ADM - Acquisition Decision Memorandum

FDD - Full Deployment Decision

FOC - Full Operational Capability

I2R2 - Increment 2 Release 2

IOC - Initial Operational Capability

OER - Operational Test Agency Evaluation Report

USD(AT&L) - Under Secretary of Defense for Acquisition, Technology, and Logistics

Performance

Performance Characteristics		
Original Estimate Objective/Threshold		Current Estimate (Or Actual)
Net Ready		
100% of interfaces; services; policy-enforcement controls; and data correctness, availability, and processing requirements designated as enterprise-level or critical in the Joint integrated architecture.	100% of interfaces; policy-enforcement controls; and data correctness, availability, and processing requirements designated as enterprise-level or critical in the Joint integrated architecture.	Met Objective (I2R2)
Data Availability, Currency and Responsiveness -Medical Infrastructure Readiness		
Shall provide the capability to document, access, aggregate, and display information to support assessment of medical personnel, medical units, medical facilities, medical equipment and supplies to determine capabilities and limitations during deployment and sustainment. System shall have the capability to acquire needed information by search, with successful searches yielding 99% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Shall provide the capability to document, access, aggregate, and display information to support assessment of medical personnel, medical units, medical facilities, medical equipment and supplies to determine capabilities and limitations during deployment and sustainment. System shall have the capability to acquire needed information by search, with successful searches yielding 95% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Met Threshold (I2R2)
Data Availability, Currency and Responsiveness -Patient Visibility		
Shall provide current, accurate, and reliable patient visibility information during contingencies from initial point of care within and between theater MTFs, and during movement within the theater and between theaters en route to CONUS MTFs. Patient visibility applies to U.S. Service members and contractors, allied and coalition forces, enemy prisoners of war, and host nation and local national civilians. System shall have the capability to acquire needed information by search, with successful searches yielding 99% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Shall provide current, accurate, and reliable patient visibility information during contingencies from initial point of care within and between theater MTFs, and during movement within the theater and between theaters en route to CONUS MTFs. Patient visibility applies to U.S. Service members and contractors, allied and coalition forces, enemy prisoners of war, and host nation and local national civilians. System shall have the capability to acquire needed information by search, with successful searches yielding 95% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Met Threshold (I2R2)
Data Availability, Currency and Responsiveness -Individual Medical Readiness		
Shall provide the capability to access, aggregate, and display medical readiness status for individuals and for units in the theater in accordance with ASD (HA) Memorandum. System shall have the capability to acquire needed information by search, with successful searches yielding 99% accurate data from the authoritative source; data is current	Shall provide the capability to access, aggregate, and display medical readiness status for individuals and for units in the theater in accordance with ASD (HA) Memorandum. System shall have the capability to acquire needed information by search, with successful searches yielding 95% accurate data from the authoritative source; data is current	Met Threshold (I2R2)

as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	
Data Availability, Currency and Responsiveness -Illness and Injury Rates		
Shall provide ability to access, aggregate, and display illness and injury rates and trends for the theater in accordance with Office of the CJCS Memorandum MCM-0006 -02. System shall have the capability to acquire needed information by search, with successful searches yielding 99% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Shall provide ability to access, aggregate, and display illness and injury rates and trends for the theater in accordance with Office of the CJCS Memorandum MCM-0006 -02. System shall have the capability to acquire needed information by search, with successful searches yielding 95% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Met Threshold (I2R2)
Data Availability, Currency and Responsiveness -Reportable Medical Events		
Shall provide the capability to access, aggregate, and display rates and trends for Triservi ce Reportable Events data in accordance with Office of the CJCS Memorandum MCM-0006 -02. System shall have the capability to acquire needed information by search, with successful searches yielding 99% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Shall provide the capability to access, aggregate, and display rates and trends for Triservi ce Reportable Events data in accordance with Office of the CJCS Memorandum MCM-0006 -02. System shall have the capability to acquire needed information by search, with successful searches yielding 95% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Met Threshold (I2R2)
Data Availability, Currency and Responsiveness -Medical Logistics Visibility		
Shall provide the capability for authorized users to access current and accurate location information from authoritative sources for medical (class VIII) supplies and equipment, and for blood and blood products. Includes ITV within and between theaters, and the location and quantities of onhand stocks within the theater. System shall have the capability to acquire needed information by search, with successful searches yielding 99% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Shall provide the capability for authorized users to access current and accurate location information from authoritative sources for medical (class VIII) supplies and equipment, and for blood and blood products. Includes ITV within and between theaters, and the location and quantities of onhand stocks within the theater. System shall have the capability to acquire needed information by search, with successful searches yielding 95% accurate data from the authoritative source; data is current as determined by established business processes. Query response times will meet those specified for the GCSS FoS.	Met Objective (I2R2)
Data Transfer		
Shall provide the capability to transfer all medical data entered in TMIP-J to appropriate records and record keeping systems in the sustaining base with 99.99% accuracy, benchmarked on a quarterly basis, when authorized by the Theater Combatant Commander, regardless of the method of transfer (i.e., removable media such as flash drives, CD ROM/DVD; electronic network transmissions and physical database transfers). Includes documentation for: inpatient and outpatient medical and dental care; immunizations administered in	Shall provide the capability to transfer all medical data entered in TMIP-J to appropriate records and record keeping systems in the sustaining base with 99% accuracy, benchmarked on a quarterly basis, when authorized by the Theater Combatant Commander, regardless of the method of transfer (i.e., removable media such as flash drives, CD ROM/DVD; electronic network transmissions and physical database transfers). Includes documentation for: inpatient and outpatient medical and dental care; immunizations administered in	Met Threshold (I2R2)

Theater; pre- and post-deployment questionnaires; industrial hygiene documentation; and hearing conservation documentation.	Theater; pre- and post-deployment questionnaires; industrial hygiene documentation; and hearing conservation documentation.	
Standards Compliance		
Shall protect against unauthorized disclosure of both personal privacy and patient health data. The system shall handle data in accordance with P.L. 104-191. Data to be protected shall be registered in accordance with DoD Discovery Metadata Registry policy in the DoD Metadata Repository.	Shall protect against unauthorized disclosure of both personal privacy and patient health data. The system shall handle data in accordance with P.L. 104-191. Data to be protected shall be registered in accordance with DoD Discovery Metadata Registry policy in the DoD Metadata Repository.	Met Objective (I2R2)
System Operational Availability and Responsiveness		
System operational availability shall be 100%. Meet CTP Production Objective response times specified in the TMIP-J Increment 2 CPD.	System operational availability shall be 99%. Meet CTP Production Threshold response times specified in the TMIP-J Increment 2 CPD.	Met Threshold (I2R2)

Memo

1/ All activity interfaces, services, policy-enforcement controls, and data-sharing of the NCOW-RM and GIG-KIPs will be satisfied to the requirements of the specific Joint integrated architecture products (including data correctness, data availability, and data processing), and information assurance accreditation, specified in the threshold and objective values.

2/ Assistant Secretary of Defense (Health Affairs) Memorandum, Subject: Policy for Individual Readiness Metrics, May 2, 2003.

3/ Office of the Chairman of the Joint Chiefs of Staff Memorandum MCM-0006-02, Updated Procedures for Deployment Health Surveillance and Readiness, February 1, 2002.

4/ Public Law 104-191, Health Insurance Portability and Accountability Act (HIPAA) of 1996-Protecting Electronic Health Information

5/ TMIP-J does not own or maintain the networking infrastructure. System availability shall be measured in terms of the percentage of time that the system's end users are able to access and use the functionality of the system application software from their individual workstations at unit level, whether or not communications links with external organizations are available. System operational availability will equal the number of hours system hardware (i.e., end user workstations) are actually available over a year divided by the total number of hours workstations should have been available over a year. The total number of hours end user workstations are expected to be available over a year does not include scheduled down time for system maintenance.

6/ As defined in the TMIP-J CPD dated November 20, 2007.

Acronyms and Abbreviations

ASD(HA) - Assistant Secretary of Defense (Health Affairs)
CJCS - Chairman of the Joint Chiefs of Staff
CONUS - Continental United States
CPD - Capability Production Document
CTP - Critical Technical Parameter
GCSS FoS - Global Combat Support System Family of Systems
GIG-KIPs - Global Information Grid - Key Interface Profiles
ITV - In-Transit Visibility
MTFs - Medical Treatment Facilities /6
NCOW-RM - Net-Centric Operations and Warfare Reference Model
P.L. - Public Law

Cost

TMIP-J Inc 2				
Appropriation Category	BY 2000 \$M		TY \$M	
	Original Estimate	Current Estimate Or Actual	Original Estimate	Current Estimate Or Actual
Acquisition Cost				
RDT&E	347.0	270.4	431.8	323.7
Procurement	15.8	13.7	20.1	16.7
MILCON	0.0	0.0	0.0	0.0
Acq O&M	272.2	219.5	374.7	267.8
Total Acquisition Cost	635.0	503.6	826.6	608.2
Operating and Support (O&S) Cost				
Total Operating and Support (O&S) Cost	548.4	323.6	752.6	448.2
Total Life-Cycle Cost				
Total Life-Cycle Cost	1183.4	827.2	1579.2	1056.4

Cost Notes

1. This report and the Budget Year IT-1 Exhibit cover different time periods thus the costs will not match.
2. Then Year dollars are included for information purposes only; cost variances will be reported against Base Year dollars.
3. The O&S costs reflect all work performed during that phase, regardless of the type or source of funding.
4. FY16 TMIP-J funding represents the planned spending and execution for TMIP-J as it enters into sustainment.
5. TMIP-J FY16 RDT&E funding of \$22.1M and FY16 PROC funding of \$1.5M will be reprogrammed to JOMIS.